

meeting in the center near the lower  
placenta

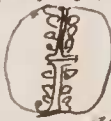
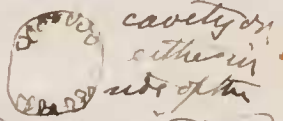
placenta  
to the end of  
dehiscence



and this  
remain attached  
the valves in

(*Leontium laevigatum* (Halenius etc.))

In the third tribe Sweeten, the placenta  
exceedingly thin & often scarcely discernible  
line the walls of the  
each side of the ovule  
& single row on each  
ovule which is usually not  
even in those Halenian  
ovary is 2 pariously 2 celled  
attached to the sides of the  
the middle end - all this passes into the  
placentation of *Obolonia* and *Dactylonis*  
where the four placenta are somewhat  
to stand and cover almost the whole inner  
surface



cavity or  
either in  
side of the  
not prominent and  
where the  
the ovules are  
septum, not  
the middle end - all this passes into the  
placentation of *Obolonia* and *Dactylonis*  
where the four placenta are somewhat  
to stand and cover almost the whole inner  
surface

The fourth tribe the *Menyanthes*  
have nearly the placentation of Sweeten  
but the pairs of placenta are more condensed  
and united the dehiscence the capsule  
usually, bursting irregularly or in 4 short  
valves or not at all.

Now *Hyperochiron* will do for  
none of these - the placentation is neither  
extramarginal nor marginal nor intramarginal  
(from capsular valves) but the capsule  
is locubridally 2-valved with the placenta

25, WILTON PLACE.  
S.W.

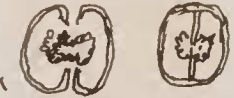
Nov 1/74

My dear Gou

I return you your *Acerates* &  
cannot unite the genus with *Asclepias* unless  
you draw in the whole of *Gomphocarpus* if you  
make the genera purely geographical without a  
character you must do the same with *Asclepias*  
*Mardenia* *Metabolium* etc which have species  
in the old and the new world and if you do so  
what would you do with *Asclepias curassavica*  
for instance there is a tropical African *Asclepias*  
which has been hitherto described as a *Gomphocarpus*  
(and unfortunately so named in *Lydia* Griseb's  
plate though corrected in the text) but also has  
been named *Asclepias*, with a very prominent  
horn in the acute corolla lobes and indeed  
closely allied to *A. curassavica* in habit colour  
etc only specifically different in the few large  
flowers & minor points there is also a true  
*Asclepias* amongst *Eschscheri* *dazarianthi* the  
presence or absence of an inner horn rather  
appendage to the corolla lobes, which separates  
*Asclepias* from *Gomphocarpus* *Schippifium* from  
*Synalobium* *Asacanthum* from *Pinceloyium*  
(namely *Asortonium*) is a bad character and  
forms unnatural combinations but I at least

cannot find a better one to divide these very large series of species and when two large genera are separated by a character constant in the great majority of species I am not for uniting them on account of one or two ambiguous species without very good collateral reasons. As far as our present knowledge goes the American species of *Aclepias* and *Gomphocarpus* (*Cleoratis*) would form a natural genus - natural as compared to American *Aclepias* - but in Africa it is very different some have the character and habit of the American *Aclepias* some have the habit but not the form (the hybrid of *fruticosa* or more like *atra* in habit than most it does many of its congeners) and many have a distinct habit. The whole series of *Aclepias* & *Gomphocarpus* run into each other and the differences in the corona form very unnatural groups but better ones certainly cannot be found without a long and careful study of every species and perhaps not even then. I should therefore under present circumstances keep in *Gomphocarpus* and when there is a need to separate within the *Aclepias* series I would put the species into that genus - have it at least at home in other respects.

I observe in the enclosed an inner or upper series of small coronal scales between the serrate ones and the anthers and alternating with them as I have occasionally found in a few species of *Metastelma* and some other genera. I had not observed them in the *Aclepias* group but may have overlooked them as I have found them elsewhere of no generic consequence and after examining two or three sp. of American *Aclepias* and *Cleoratis* I thought it well to go through them all.

I have now done *Loganiaceae*, *Gallesiacae*, *Polemoniaceae* and almost finished *Hydrophyllaceae* and want your advice about *Hesperochiron*. I have carefully examined flowers & fruit of both species of *californica* and *illinoensis* and cannot make up my mind to bring them into *Gentianae*. I divide that order into 4 tribes chiefly according to the placentation discarding the connective and persistence of the style as absolutely impracticable in the *Exacoe*, which are all old world the ovary is completely recelled with fleshy placentae left free (the two united or separate) by the delicacy of the capsule.  In the great mass of *Chironia* the margins of the corolla leaves more or less intruding on the cell and sometimes

in the centre of the valves, a state of things  
unknown in *Gutierrezia* - Greeneback,  
saying that the placental are along the  
edges of the carpels in the *Mudbean* is I  
think all both - I find nothing of the kind

But ought not *Heperochiron* to go  
into *Hydrophyllum*? - besides the capsule  
the corolla & habit is totally unlike any  
*Gutierrezia*. Now look into it and give  
me your opinion

The three genera of *Melampyretaceae*  
are scarcely distinct but may be main-  
tained if *M. cristata* is kept in *Melampyretaceae*  
and *Villosia* restricted to the P. African  
and Australian species

In *Polemoniaceae* you have saved  
me a world of trouble. In *Hydrophyllum*  
I follow you in reducing *Eutoca* to  
*Chaulia* - of course *Whittavia* & *Micron*  
*gaster* must go too - as well as *Cornucopia*  
though I cannot help thinking that  
two genera might have been kept up.  
You however know best having  
examined more species than I have  
*Melittiza* of course goes into *Emmenanthe*

Indeed your *L. parviflora* is I believe  
identical with the original *M. lutea*

I see you keep up *Conocephalus* which  
may be done chiefly on the remarkable  
habit.

*Migandria* is another genus which  
connects *Hydrostachya* with *Hydrophyllum*  
the placental in several of the flowers  
I have examined do not quite meet  
in the centre.

I believe in a former letter I told  
you of my three tribes of *Leguminosae*  
*Sclerimor*, *Eulogonium* & *Goetheana*  
the *Eulogonium* divides into 5 subtribes  
*Spizelia*, *Radcliffea*, *Pezomaea*, *Stalonia*  
and *Wrightia*.

I am now going into *Poragium*

Ever yours

George Donnell-Smith